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Publication of Research in Psychology Journals: Some Suggestions for New Authors

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This paper describes some shortcomings of manuscripts reporting research results and suggests ways in which new authors might improve their chances of publishing in psychological journals. Such manuscripts should, but sometimes do not, include the same steps as the research: what was studied, the formulation of the research questions, the design of the study, and the execution and outcome of the research. Authors need to be aware of common shortcomings in content and structure, errors in format, and errors resulting from inadequate proofreading. Authors should also recognize that many laborious

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steps usually follow initial manuscript preparation, both before and after submission to a journal. Suggestions are made to guide authors through these processes.

Publication of Research in Psychological Journals:
Some Suggestions for New Authors

Publishing your research is important. If you have spent time
and effort to plan and carry out a piece of research which has
resulted in meaningful findings (be they positive or negative),
that research should be shared with your peers by publication in
professional journals.

Many manuscripts are submitted to journals, and most of them
are rejected. According to an APA monograph on understanding the
manuscript review process (American Psychological Association,
1982, p. 3), the rejection rate for APA journals averages about
75%. As a consulting editor for two different journals, I have
reviewed a great many papers. It is my strong feeling that a
larger number of papers might be accepted if the authors had
exercised more care in planning and reporting their research.
Accordingly, the purpose of this paper is to describe some of the
shortcomings I have encountered in the manuscripts I have reviewed
and to make some suggestions for new authors that may improve their
chances of publishing in psychological journals.

Before proceeding, I cannot emphasize too strongly the
researcher's need to have and use a copy of the latest APA
Publications Manual (American Psychological Association, 1983).
This manual is an absolute necessity. Consider acquiring two
copies--one to keep at home and the other for work. I believe new
authors could substantially enhance their chances of publishing if
they would learn what is in the manual and practice it.

Would-be authors must recognize that competent writing cannot
compensate for bad research. Bad research may result from several
causes. Perhaps the researcher is inexperienced and errs in the
planning or the execution of the research. Or, he or she may be
too eager to rush into print. Instead of writing, a researcher may
first need to continue the development of a measure or to replicate
a tenuous finding. In any case, the suggestions made here assume
that the research to be reported is basically sound.

These suggestions also presuppose the researcher can write--
that is, there are no blocks impeding his or her writing. A severe
dread of failure (or fear of success?) may prevent the researcher
from getting any words down to begin with or from completing a
manuscript once it is begun. Procrastination may be a clue here.
Researchers who protest that they cannot get around to writing up

their research should consider this psychological aspect of writing
before considering structure, content, and the other issues
discussed in this article. The APA monograph on the manuscript
review process (American Psychological Association, 1982) addresses
some of the psychological as well as the technical issues involved.

Before Writing the Manuscript

New authors who wish to improve the chance of publishing their
research would benefit from considering certain issues long before
they begin writing their research reports. Some of these issues
need to be addressed even before the research is undertaken.

What to Study

The researcher needs to consider carefully what research
problems may be worthy of investigation. Obviously, there are no
hard and fast rules for specifying what is "worthy." Campbell,
Daft, and Hulin (1982) have made this point in the introduction to
their book, What to Study: Generating and Developing Research
Questions. One of the themes that emerges from this book is that
significant research is more likely to result if the researcher is
actively involved in the research problem, which must have
intrinsic interest and not be based solely on expedience, funding,
or convenience. Research problems which are important to
researchers will sustain their interest during the arduous ·
processes of designing and implementing the research and, later,
reporting the results.

Formulating the Research Questions or Hypotheses

After the researcher identifies the problem area that is of
interest, he or she must develop specific research questions or
hypotheses. Campbell et al. (1982) have enumerated a number of
strategies that may serve to aid in the development of more
satisfying research questions. Some of these strategies are
designed to expand the researcher's horizons with respect to the
problem (e.g., developing new knowledge by teaching a course or by
writing a review paper, or widening one's experience by increasing
contacts with real world settings and with persons in other
disciplines). Campbell et al. (1982) also have suggested types of
research questions that are generally to be avoided--examples are
those representing research fads, research questions that can't be
answered or those to which we already know the answers, and
questions which are selected primarily because they are appropriate

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for computer analysis. Method should not drive the formulation of research questions any more than it should determine the research problem.

Designing the Study

After selecting a topical area and specifying the research questions to be investigated, the researcher must consider the research design. It is important to note here that all research designs have shortcomings. Methodological choices involve tradeoffs. An in-depth investigation of a problem, for example, may necessitate using a small sample, thus limiting the external validity or generalizability of the results.

In designing their research, most researchers are subject to a variety of constraints--time, money, energy, availability of subjects, and so on. These resource constraints invariably affect the design of the study and, again, trade-offs will have to be made. In selecting the research site and subjects, access is essential. (No research plan, no matter how brilliant its conceptualization, is worth anything if one cannot obtain access to the needed site and population, if these are crucial to the implementation of the research.) The constraints posed by political realities in applied settings are often more pronounced than in university laboratories. Such constraints can change the entire thrust of one's research.

Limitations also may operate in the selection of research strategies. The intervention of choice may be too resource intensive (in terms of time or dollars or both) to justify its use in a particular setting. In-depth interviews may be preferred for collecting certain data, but their labor-intensive nature may preclude their use. Multiple methods in research are clearly desirable (McGrath, Martin, & Kulka, 1982; Oliver, 1979). If a researcher collects interview, survey, and records data on the same variable and obtains similar results, he or she can be far more confident of the results than if only one type of data was obtained.

While in the process of research design, the researcher would do well to consider the analytic techniques to be used. Although it is true that the statistical analyses used are a matter of judgment, there are a few practices which most experienced researchers try to avoid. A questionable practice sometimes encountered in manuscripts submitted for publication is that of using multiple t tests. Researchers need to remember about

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controlling alpha levels. They also should be sure that there are enough subjects to support the analyses. (An insufficient number of subjects is a failing most often encountered in correlational analyses.) In addition to the usual statistical texts, authorities such as Nunnally (1978) can provide guidance. Statistician friends who can review research designs before the research is begun are invaluable.

Executing the Research

No matter how carefully the researcher has planned the research, pragmatic realities invariably intrude into the execution of the research design. The dropout rate, e.g., from a career counseling workshop, might be unusually high due to some factor completely extraneous to the intervention. Or an authority may decide that a previously agreed upon intervention will not be feasible because of administrative inconvenience. During the data collection phase, changing circumstances frequently require the researcher to make compromises and changes. Researchers who are flexible and innovative may even find that the necessity to modify their research design leads to unexpected benefits!

While Writing the Manuscript

Content and Structure

Reviewers frequently read manuscripts which don't seem to "hang together." That is, the flow from one section to the next is disjointed and confusing. This is one reason for working from an outline. Looking at the skeleton of the paper will give the author hints as to what is missing or dealt with disproportionately (i.e., stinted or given too much weight considering the rest of the paper). Using an outline doesn't mean that one necessarily has to proceed in a lock-step fashion from the introduction through method and results to discussion. It is not unusual to work back and forth between the outline and the paper, refining both as the work proceeds. Most authors need to revise their material a number of times, and revising the outline as revisions are made in the text makes it easier to insure that essential points are covered and with the proper emphasis. The section on writing style in the APA Publications Manual (American Psychological Association, 1983, pp. 32-36) contains a number of suggestions that new authors may find useful in ensuring that their writing flows logically and smoothly.

Two additional references authors will find helpful in improving the content and structure of their papers are the Strunk and White (1979) classic, Elements of Style, and Day's (1983) book on how to write and publish a scientific paper. The former book contains what the authors consider to be the fundamentals of English style. Briefly presented are rules of usage and principles of composition that are most commonly violated. The theme of Day's book is that the preparation of a scientific paper does not involve literary skills but is strictly a matter of organization. Day gives guidelines for preparing the different parts of a scientific paper as well as suggestions for typing and submitting the manuscript to a journal. He also describes the review process, the electronic manuscript, and how to deal with editors and printers. Not only are these two books helpful in preparing manuscripts, but they are both a delight to read.

The remainder of this section contains suggestions pertaining specifically to the various parts of a manuscript reporting an empirical study. See Maher (1978) for a checklist of items to be considered in reviewing each part of a manuscript. Although Maher's guidelines were originally intended for journal reviewers, authors will also find them useful.

Introduction. The introduction section may determine whether or not a paper is read and thus deserves careful attention. Sometimes the author does an inadequate job of reviewing the pertinent literature. More often, however, an author includes too much by citing literature not directly related to the problem. In my graduate school days, I was advised to prepare an introduction by starting with the hypotheses and working backward. "Thinking backward" from the hypotheses helps link together the different parts of the introduction. The beginning of the introduction sketches the background and sets the stage for what follows. This background material leads directly into a statement of the problem, and the hypotheses or research questions represent the author's attempt to resolve (or at least shed light on) the problem.

Authors should remember the primacy effect and work hard on their introductions. Reviewers will be more favorably disposed toward the rest of a manuscript if it gets off to a good start.

Method. The most common shortcoming in method sections is the author's failure to provide complete descriptions of what was actually done and how it was done. Often it is not clear exactly who the subjects were, how they were obtained, or even how many were included in the final sample. Authors seem particularly prone

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to confusing the reader when their subjects are a subset of a
larger sample. All procedures should be carefully described,
including, for example, the exact nature of any stimulus presented
to the subject. If possible, the author should report the wording
of the instructions (or whatever the stimulus might be).

Another part of the method section that is often inadequate is
that which describes the measures used. As has been documented
(Zytowski & Betz, 1972; Oliver, 1979), the reliability and validity
of measures frequently are unreported. Such omissions are not
important if well known instruments have been used. Using less
well known measures, particularly those devised by the researcher
for the study being reported, definitely requires statements
concerning their reliability and validity.

Some authors include a separate design and analysis action. In
any event, it should be clear to the reader how the hypotheses were
tested. Authors sometimes assert that a factorial design was used
but neglect to state what those factors and their levels were and
what the dependent variable was. The reader should not have to
study a table of data to decipher the experimental design.

The traditional purpose of the method section is to enable a
fellow scientist to replicate the experiment being reported. While
unusual instruments or detailed procedures cannot always be
included in the research report (although they should be available
from the author), the reader should be able to understand precisely
what was done and how it was done.

Results. The results section should report only the
findings--no interpretations, no implications, just the results.
Authors often confuse the function of the results section with that
of the discussion section. It is possible to combine the two
sections, but except for a very short paper it is usually best to
have separate sections for reporting results and for discussing
them. In reporting results, include all the data that would be
required for a meta-analysis approach to research integration.
Oliver and Spokane (1983) have provided suggestions for improving
the reporting of research results to facilitate research
integration. Following Maher's (1978) guidelines will also help
insure that pertinent facts and data are included. At a minimum,
the research report should contain means, standard deviations, and
n's for all groups on all variables as well as clear descriptions
of samples and procedures.

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Discussion. The discussion section is probably the most
important part of the paper. It needs to be linked to the
introduction, the hypotheses, the design and analysis section, and
the results; but this is not always done. Authors sometimes fail
to show clearly how the findings relate to the hypotheses being
tested. Only after this connection is delineated should the author
go on to conclusions, interpretations, implications, and so on.
Sometimes authors make assertions that are not supported by their
data. Authors need to read their discussion sections very
critically (and ask others to do the same) to be sure that all
conclusions and interpretations have a solid basis in the research
findings.

Errors in Format

There are innumerable format errors found in manuscripts
submitted for publications, but the following are those which are
probably encountered most frequently. These format errors may seem
to be trivial details, but avoiding them will give one's paper a
more professional quality.

Citations. The author should cite in the text all sources used
in the research and preparation of the article. The most common
citation mistakes involve the use of "et al." and commas. The name
of the senior author is not followed by a comma (write "Johnson et
al., 1978).

APA style for seriation specifies a comma before "and" or "or"
in series of three or more items, and this principle applies to
citations in the text and in the reference list. Hence one writes
"Adams, Bauer, and Cooper, 1983" and not "Adams, Bauer and Cooper,
1983." The ampersand (&) is used in textual citations only when
the authors' names are enclosed in parentheses. The ampersand is
also used in References.

Reference list. The reference list follows the text and
includes all works cited in the article except for personal
communications. Thus the reference notes section has been
eliminated since personal communications are now cited only in the
text. The latest format for references requires enclosing the date
in parentheses and placing it immediately following the author's
name.

Tables. Frequently there are errors in the format of tables. A
common error of authors is to capitalize more than the first word
in headings within a table. The table numbers and titles are now

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placed flush with the left margin instead of centered. The table
section in the APA manual contains excellent suggestions on
selecting titles and headings, relating tables to the text,
deciding the size of tables, etc.

Headings. Most manuscripts require three levels of headings:
center, side, and paragraph (Levels 3, 4, and 5 in the APA manual).
Hence the major sections (except for the introduction, which is
untitled) such as Method would be centered with their subsections
(e.g., Subjects, Instruments, Procedure) as side headings. Side
headings are underlined, with major words capitalized. Paragraph
headings are indented, have only the initial word capitalized, and
are followed by a period. Another heading, the "running head," is
sometimes omitted in manuscripts. This is a shortened version of
the title which is shown in the upper right hand corner of every
page. The page number is now placed flush with the last letter of
the running head, not centered, as was formerly done.

Errors Resulting from Inadequate Proofreading

Errors of this type are largely a matter of carelessness. If
an author lacks the skill to detect such errors, it is important to
find someone else who does possess such skill to review one's
paper.

Grammar, spelling, and punctuation. A grammatical error that
occurs frequently is the use of the wrong verb form. It's easy,
unless one is reading carefully to catch such mistakes, to overlook
the fact that a singular subject separated from its verb by a
group of words containing plural nouns must use the singular form
of the verb. Some of the spelling "errors" may be arguable, but
APA style specifies the first spelling in the dictionary (Webster's
New Collegiate Dictionary is the standard reference). Hence, APA
style requires "judgment" and "counseling" rather than the forms
"judgement" and "counselling."

The most common punctuation errors involve misuse of commas.
Independent clauses, for example, should generally be separated by
commas. Commas should not be used in compound predicates. Some
people tend to insert commas indiscriminately if a sentence seems
to be too long. In such cases, it may be better to break the long
sentence into two or three shorter sentences. Once again, these
are judgment calls. The goal is clarity, but clarity is most often
achieved by following commonly accepted rules for punctuation.

Tabular data and graphs. Occasionally one notes discrepancies between what is said in the text and what is shown in tables or graphs. Errors of this kind seriously erode an author's credibility. The author will be held responsible for all errors, no matter who was actually at fault.

References. In reviewing manuscripts, one sometimes finds that a source cited in the text is not included in the reference list or that a source in the reference list cannot be found in the text. Sources cited in the text (except for personal communications) must be identical to sources in the reference list and vice versa. It is important that the author make sure that each work referenced appears in both the text and the reference list.

After Completing the Manuscript

Checking and Rechecking

The need for careful proofreading during manuscript preparation has been noted. But the necessity for checking and rechecking everything in a paper cannot be overemphasized. Without such care, errors can be numerous. It has been recommended that data in the final version of a paper be checked against the original calculations or computer printout (Oliver & Spokane, 1983).

Obtaining Reviews from Others

It is important that other people read one's manuscript also. A good rule for an author to follow is never to submit a manuscript for publication until at least one person has reviewed it. Researchers can draw upon their colleagues, critics, friends, and the like and should seek out someone with statistical expertise. A critical review is the best review. The author should avoid being defensive about criticisms received and remember that gentle treatment at this stage is of little value. It is also helpful to obtain feedback from a person not familiar with the topical area to determine whether the content of the paper is intelligible to such a reader. The idea is to have people with somewhat different perspectives review the paper. If one or more of these persons happens to be a nit-picker about grammar, format, and the like, then the author is indeed fortunate.

It is important for new authors to remember that it takes courage to request reviews, because reviewers may make what one perceives to be negative comments about the research or writing. But their suggestions can help an author improve the paper.

Submitting the Manuscript

After the author is convinced the paper is ready to submit, he or she prepares a cover letter to the editor of the journal to which the article is being sent. The editor ought to be given any pertinent facts about the manuscript such as whether it is based on a conference paper or a dissertation, or if it's an extension of previously published research, and to whom the correspondence should be addressed. The latter point is particularly important if there are multiple authors or if the author's present affiliation differs from that shown on the manuscript. Day (1983) contains a sample cover letter (pp. 77-78).

Revising the Manuscript

Rarely are manuscripts accepted for publication in psychological journals without at least one revision. Campbell (1982) reported that of the 3,636 manuscripts submitted to the Journal of Applied Psychology during the six years of his editorial tenure (1976-1982), none was accepted without revision. So authors should not be dismayed if their papers are not initially accepted. If the editors reject the article outright, there is still the option of submitting the manuscript to another journal (perhaps after revising on the basis of the rejecting editor's comments). Or the editor may suggest revising the article and resubmitting it. The revisions requested may be minor, or they may involve a major rewrite. In critiquing a manuscript, the reviewers try to be helpful in pointing out ways in which the article could be improved. (This may be done even if a reviewer's recommendation is that the article not be published.) Journal editors also read the manuscripts and indicate their agreement, or lack of it, with the reviewers' comments. The letters written by journal editors can be very helpful in indicating to authors why their manuscripts were rejected or how the papers might be revised to improve their chances for acceptance. An author who takes those comments and suggestions seriously and strives to improve will invariably produce a better manuscript next time.

Authors should work hard on their revisions. Each comment made by the reviewers and the editor needs to be considered and a sound rationale should exist for rejecting those changes the author does

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not wish to make. In the cover letter accompanying the revised
paper, the author can explain to the editor how each comment was
dealt with. Again, it is important for authors to recheck their
articles before resubmitting, as changes made after the article
reaches the page proof state can cost money. It is possible that
the editor may request yet another revision upon the basis of
additional reviews of the article. If so, the careful, systematic
process of revision and checking must be repeated.

A Final Comment

Writing is work—sometimes very hard work indeed. As a classic
book on research illustrates with a dramatic figure entitled,
"Writing Means Re-Writing" (Barzun & Graff, 1977, p. 31), you can
expect to make many changes in a manuscript before it is ready to
send to an editor. Do not be unduly upset when the editor rejects
the paper or asks for extensive revisions. Stay with it. Summon up
those last vestiges of resolve and see the thing through. It's
worth the effort!

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